NOT FOR PRINTED PUBLICATION

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

PERSONAL AUDIO, LLC,	§	
	§	
Plaintiff,	§	
	§	CIVIL ACTION No. 9:09CV111
v.	§	
	§	
APPLE, INC.; SIRIUS XM RADIO, INC.;	§	JUDGE RON CLARK
COBY ELECTRONICS CORP.; and	§	
ARCHOS, INC.,	§	
	§	
Defendants.	§	
	§	

**ORDER CONSTRUING CLAIM TERMS OF
UNITED STATES PATENT NOS. 6,199,076 AND 7,509,178**

Plaintiff Personal Audio, LLC ("Personal Audio") filed suit against Defendant Apple,

Inc. ("Apple"),[1] claiming infringement of United States Patent Nos. 6,199,076 ("the '076

patent") and 7,509,178 ("the '178 patent"). The court conducted a *Markman* hearing to assist in

interpreting the meaning of the claim terms in dispute.[2] Having carefully considered the patent,

---

[1] Defendants Sirius XM Radio, Inc., Coby Electronics Corp., and Archos, Inc. have been dismissed from this case. [*See* Doc. #177 (order dismissing Sirius XM Radio, Inc.); Doc. #126 (order dismissing Coby Electronics Corp.); Doc. #133 (order dismissing Archos, Inc.).]

[2] The transcript of the August 31, 2010 *Markman* hearing contains a number of representations by and agreements of the parties, as well as answers by their experts to technical questions from the court, all of which will not be repeated here, but which may assist in understanding the issues presented. This order governs in the event of any conflict between the order and the court's preliminary analysis at the hearing. Court's Exhibit Nos. 1-2, 4-5, 5a, 6, 6a, 7, 7a, and 10-11 were discussed at the hearing and are part of the record as [Doc. #201-1]. These exhibits will be cited in this order as "Ct.'s Ex. ___." The transcript of the August 31, 2010 claim construction hearing is found at [Doc. #203], and will be cited in this order as "Tr. at p. ___, l. ___."

the parties' contentions as presented in their briefs, and the arguments of counsel, the court now

makes the following findings and construes the disputed claim terms.[3]

I. CLAIM CONSTRUCTION STANDARD OF REVIEW

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*

(*Markman II*), 517 U.S. 370, 388-91, 116 S. Ct. 1384, 1395-96 (1996); *Cybor Corp. v. FAS*

Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998). "The duty of the trial judge is to determine

the meaning of the claims at issue, and to instruct the jury accordingly." *Exxon Chem. Patents,*

Inc. v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed. Cir. 1995), *cert. denied*, 518 U.S. 1020, 116

S. Ct. 2554 (1996). "'[T]he claims of a patent define the invention to which the patentee is

entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005)

(*en banc*) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111,

1115 (Fed. Cir. 2004)), *cert. denied*, 546 U.S. 1170, 126 S. Ct. 1332 (2006). "Because the

patentee is required to 'define precisely what his invention is,' . . . it is 'unjust to the public, as

well as an evasion of the law, to construe it in a manner different from the plain import of its

terms.'" *Id.* (quoting *White v. Dunbar*, 119 U.S. 47, 52, 7 S. Ct. 72, 75 (1886)).

---

[3] To become familiar with the technology underlying the patents-in-suit from the perspective of one skilled in the art, and to better understand the technical aspects of the parties' arguments, the court appointed Dr. Frank Shipman as technical advisor. [*See* Docs. #148 & #170.] Dr. Shipman received his Ph.D. in computer science from the University of Colorado in 1993, his M.S. in computer science from the University of Colorado in 1990, and his B.S. in Electrical Engineering from Rice University in 1988. He is currently a professor at Texas A&M University, where he has been on the faculty since 1995. His research interests include intelligent user interfaces, hypertext, computers and education, multimedia, new media, computers and design, computer-human interaction, and computer-supported cooperative work. His research has resulted in more than 100 refereed publications, including two Association for Computing Machinery best paper awards. Dr. Shipman's curriculum vitae can be found at http://www.csdl.tamu.edu/~shipman/vitae.pdf.

The words of a claim are generally given their ordinary and customary meaning. *Id.* "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. Analyzing how a person of ordinary skill in the art understands a claim term is the starting point of claim interpretation. *Id.* A person of ordinary skill in the art is "deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Where a claim term has a particular meaning in the field of the art, the court looks to "'those sources available to the public to show what a person of skill in the art would have understood [the] disputed claim language to mean.'" *Id.* at 1314 (quoting *Innova*, 381 F.3d at 1116). Those sources include "'the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.'" *Id.* (quoting *Innova*, 381 F.3d at 1116).

The intrinsic evidence, that is, the patent's specification and, if in evidence, the prosecution history, is important in claim construction. *See id.* at 1315-17. "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The patent specification and the prosecution history may clarify the definition of terms used in the claims, or may show that the patentee has clearly disavowed the ordinary meaning of a term in favor of some special meaning. *See Markman v. Westview Instruments, Inc.* (*Markman I*), 52 F.3d 967, 979-80 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384 (1996).

A claim term takes on its ordinary and accustomed meaning unless the patentee demonstrated an express intent to impart a novel meaning by redefining the term "with reasonable clarity, deliberateness, and precision" in the patent specification or prosecution history. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). The patentee may demonstrate an intent to deviate from the ordinary meaning "by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Id.* at 1327. If the patentee clearly intended to provide his own definitions for claim terms, the "inventor's lexicography governs." *Phillips*, 415 F.3d at 1316.

In addition to the intrinsic evidence, a court is also authorized to review extrinsic evidence, such as dictionaries, inventor testimony, and learned treatises. *Id.* at 1317. For instance, in some cases "the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction . . . involves little more than the application of the widely accepted meaning of commonly understood words"; a general purpose dictionary may be helpful in these instances. *Id.* at 1314. However, extrinsic evidence is "in general less reliable" than the intrinsic evidence in determining how to read claim terms. *Id.* at 1318. Therefore, while extrinsic evidence may be used to help educate the court regarding the field of the invention and what a person of ordinary skill in the art would understand claim terms to mean, extrinsic evidence should be considered in the context of the intrinsic evidence in order to result in a reliable interpretation of claim scope. *Id.* at 1319.

II. PATENT BACKGROUND AND TECHNOLOGY

The '076 patent was filed in 1996 and issued in 2001. U.S. Patent No. 6,199,076, at (22),

(45) (filed Oct. 2, 1996). The '178 patent is a divisional of the '076 application and issued

in 2009. U.S. Patent No. 7,509,178, at (62), (45) (filed Feb. 13, 2001). The patents share a

common specification. They are directed toward an audio program player that will play a

sequence of audio program segments or files and accept commands from the user to skip forward

or backward in the sequence. The preferred embodiment described in the specification includes

an "audio player device" that may be implemented by a personal computer that includes a CPU,

display, mouse, keyboard, etc., and that connects to a server via the internet to download "audio

program segments." A "sequencing file" defines the sequence of the audio program segments,

i.e. the order in which the segments will be played or what segment comes next when the user

issues a command to skip forward or backward in the sequence.

III. PERSON OF ORDINARY SKILL IN THE ART

After considering the parties' proposals and arguments made by the parties at the

Markman hearing, the court finds that a person of ordinary skill in the art is an individual with

the equivalent of a four-year degree from an accredited institution (usually denoted as a B.S.

degree) in either computer science or computer engineering with a concentration of courses in

programming and the development and use of hardware and software, and approximately two to

three years of programming experience. Additional graduate education might substitute for

experience, while significant experience in the field of computer programming might substitute

for formal education. [*See* Tr. at p. 6, l. 10 to p. 14, l. 2 (discussing Ct.'s Ex. 1).]

IV. DISPUTED CLAIM TERMS

The disputed claim terms are found in claims 1-4 and 13-15 of the '076 patent and claims

1-10, 13-19, and 25-29 of the '178 patent. The independent claims are set out below, with the

disputed terms in bold. Where a disputed term is also part of a larger disputed phrase, the

disputed phrase is in bold, and the disputed term within the phrase is italicized.[4]

1. A **player** for reproducing **selected audio program segments** comprising, in combination:

   means for storing a plurality of program segments, each of said program segments having a beginning and an end,

   means for receiving and storing a *file of data establishing a sequence* in which said program segments are scheduled to be reproduced by said player,

   means for accepting control commands from a user of said player,

   means for continuously reproducing said program segments in the order established by said sequence in the absence of a control command,

   means for detecting a first command indicative of a request to skip forward, and

   means responsive to said first command for discontinuing the reproduction of the currently playing program segment and instead continuing the reproduction at the beginning of a program segment which follows said currently playing program in said sequence.

'076 patent, col. 46, ll. 13-32.

14. A **programmed digital computer** for reproducing audio programs, said computer comprising, in combination:

   a mass storage device for storing a plurality of digitally recorded audio program segments, each of said segments having a beginning and an end, and further

---

[4] In addition to the terms highlighted here, the parties dispute a number of terms that Apple contends are indefinite means-plus-function terms. Those terms will be addressed in a separate order on Apple's motion for summary judgment of indefiniteness. [*See* Doc. #164.]

receiving and storing a **file of data establishing a sequence** in which said program segments are scheduled to be played,

input means for accepting control commands from a user,

output means for producing audible sounds in response to analog audio signals,

processing means for translating said digitally recorded audio program segments into analog audio signals delivered to said output means for reproducing said recorded program segments in a form audible to said user,

processing means responsive to a first one of said control commands for discontinuing the translation of the currently playing program segment and instead continuing the translation at the beginning of the next program segment in said sequence, and

processing means responsive to a second one of said control command for discontinuing the translation of the currently playing program and instead continuing the translation at the beginning of said currently playing program.

'076 patent, col. 47, l. 38 to col. 48, l. 20.

1. An **audio program player** comprising:

    a communications port for establishing a data communications link for downloading a plurality of separate digital compressed audio program files and a separate *sequencing file* from one or more server computers,

    a digital memory unit coupled to said communications port for persistently storing said separate digital compressed audio program files and said separate sequencing file, said sequencing file containing data specifying an ordered sequence of **a collection** of said separate digital compressed audio program files,

    an audio output unit including at least one speaker or headset for reproducing said audio program files in audible form perceptible to a listener,

    one or more manual controls for accepting commands from said listener, and

    a processor for continuously delivering a succession of said audio program files in said collection to said audio output unit in said ordered sequence specified by said sequencing file in the absence of a program selection command from said listener, and for discontinuing the reproduction of the currently playing

audio program file and instead continuing the reproduction at the beginning of a listener-selected one of said audio program files in said collection in response to a program selection command from said listener.

'178 patent, col. 45, l. 60 to col. 46, l. 18.

14. An **audio program player** for automatically playing a collection of audio program files selected by a listener, said player comprising, in combination:

a memory unit for storing:
(a) a plurality of audio program files,
(b) program description data including displayable text describing each of said audio program files, and
(c) at least one separately stored **playback session sequencing file** which specifies an ordered sequence of **a collection** of said plurality of audio program files,

a communications port for downloading at least some of said audio program files and said playback session sequencing file from said one or more server computers, at least some of said audio program files downloaded from said one or more server computers being selected by said listener from a library of audio program files available from said one or more server computers, and said audio program files in said collection specified by said playback session sequencing file being selected by or on behalf of said listener to produce a personalized playback session,

one or more controls for accepting input commands from said listener,

a display screen for presenting a visual menu listing to said listener containing displayable text describing some or all of the audio program files in said collection specified by said sequencing file,

an **audio playback unit** for automatically and continuously reproducing said audio program files in said collection in the ordered sequence specified by said playback session sequencing file in the absence of a control command from said listener, and

a processor for executing one or more utility programs to perform control functions in response to said input commands from a user, said functions including:
(a) in response to a first one of said input commands designating a selected audio program file described on said visual menu listing for causing said audio playback unit to discontinue the reproduction of the currently playing audio program file in said ordered sequence and to instead

8

continue the reproduction at the beginning of said selected audio program file,

(b) in response to a second one of said control commands for discontinuing the reproduction of said currently playing audio program file and instead continuing the reproduction at the beginning of that audio program file which follows said currently playing audio program file in said ordered sequence specified by said playback session sequencing file,

(c) in response to a third one of said control commands accepted from said listener at a time when said currently playing audio program file has played for at least a predetermined amount of time by discontinuing the reproduction of said currently playing audio program file and instead continuing the reproduction at the beginning of said currently playing audio program file, and

(d) in response to said third one of said control commands accepted from said listener at a time when said currently playing audio program file has not yet played for said predetermined amount of time for discontinuing the reproduction of the currently playing program file and instead continuing the reproduction at the beginning of that audio program file which precedes the currently playing program segment in said ordered sequence specified by said playback session sequencing file.

'178 patent, col. 48, ll. 1-67.

V. CLAIM CONSTRUCTION

1. "Player" terms.

a. "Player." '076 patent, claims 1-4 and 13.

b. "Audio program player." '178 patent, claims 1-10, 13-19, and 25-29.

Personal Audio proposes that "player" and "audio program player" mean "a personal audio playback device for an individual listener." [Doc. #197-1 at 1; Doc. #197-2 at 1.] Apple proposes that "player" means a "desktop or laptop computer with a soundcard and appropriate software to playback audio program files." [Doc. #197-1 at 1; Doc. #197-2 at 1.] The parties

dispute first, whether the claimed player is limited to a desktop or laptop computer, and second,

whether the claimed player is a personal device "for an individual listener."[5]

a. Whether "player" is limited to a desktop or laptop computer.

Apple argues that the only disclosed embodiment of a "player" in the specification is

implemented by software running on a conventional laptop or desktop personal computer with a

sound card, as shown and described in Figure 1 of the patents-in-suit, and that a broader

construction of "player" should not be permitted. [*See* Doc. #175 at 5-7.] Apple further argues

that the specification enables no more than software running on a conventional desktop or laptop

personal computer, and that if Personal Audio's construction were adopted, the claims would be

invalid pursuant to 35 U.S.C. § 112. [*See* Doc. #175 at 8-9.] Personal Audio argues that the

construction of player should not be limited only to the preferred embodiments discussed in the

specification, and that the plain and ordinary meaning of "player" does not imply or demand a

desktop or laptop computer. [*See* Doc. #163 at 4-6.]

Generally, courts should not confine a patent's claims to only the embodiments described

in the specification. *See Phillips*, 415 F.3d at 1323; *Kinik Co. v. Int'l Trade Comm'n*, 362

F.3d 1359, 1364 (Fed. Cir. 2004) ("[W]hen the specification describes the invention in broad

---

[5] "Player" and "audio program player" appear in the preamble of the claims at issue. Generally, the preamble does not limit the claims. *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010). However, the preamble may be construed as limiting if it recites essential structure or steps, or if it is necessary "to give life, meaning, and vitality" to the claim. *Id.* Neither party raises the issue of whether "player" and "audio program player" are properly treated as claim limitations in this case. However, given the parties' dispute over these terms, it appears to the court that construction of "player" is necessary to give meaning to the claims. Further, when the parties raise an actual dispute regarding the proper scope of the claims, the court must resolve that dispute. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

terms, accompanied by specific examples or embodiments, the claims are generally not restricted

to the specific examples or the preferred embodiments unless that scope was limited during

prosecution."). However, when the "preferred embodiment" in the specification is described as

the invention itself, the claims are not entitled to a broader scope than that embodiment. *SciMed*

Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed. Cir. 2001).

This is not a case where the claims should be limited to only the embodiments described

in the specification. The patents' specification states simply that in the "illustrative embodiment"

the player "*may be advantageously implemented by* a conventional laptop or desktop personal

computer." '076 patent, col. 4, ll. 28-35 (emphasis added). But the specification neither requires

that the player be implemented by a personal computer nor expressly disclaims the possibility

that the player may be implemented differently. In fact, the specification states that "numerous

other information storage, processing and communications schemes may be substituted for the

preferred Internet server and PC client player architecture shown in FIG. 1." '076 patent, col. 7,

ll. 41-44.

When describing the various means by which the player computer may connect to a

server computer, the specification notes that the Infrared Data Association's ("IrDA")

communication standard may be used, and that the IrDA standard is "rapidly becoming a

standard feature in all notebook computers and PDAs." *See* '076 patent, col. 7, ll. 49-57. The

specification contemplates that IrDA may be "incorporated into portable computers of the type

which may be used in a car or on public transportation." '076 patent, col. 7, ll. 61-63. The

specification further contemplates that files may be transferred from the server computer to the

player computer using replaceable media that may be inserted into a "simplified player for

mobile use." '076 patent, col. 7, ll. 63-66; *see also id.* at col. 23, l. 66 (referring to a

"transportable player"). In light of the fact that the specification discusses "PDAs," "portable

computers of the type which may be used in a car or on public transportation," and a "simplified

player for mobile use," the court finds that a person of ordinary skill in the art would not

understand the claimed "player" to be limited to only laptop and desktop computers.[6]

See Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed. Cir. 2001) (unless compelled to

do otherwise, court should give claim term full range of its ordinary meaning as understood by

artisan of ordinary skill).

At the *Markman* hearing, Apple stated that it was "prepared to concede" that the claims

could cover something beyond a desktop or laptop computer, and stated that its primary concern

is one of jury confusion. [*See* Tr. at p. 26, ll. 19-23.] Apple seeks to make sure that the jury

understands that the term "player" includes the preferred embodiments described in the patents'

specification, i.e. a desktop or laptop computer. [*See* Tr. at p. 26, l. 24 to p. 27, l. 2.] The court

proposed to the parties that "player" and "audio program player" mean "a device that reproduces

sound from digital audio content." [Tr. at p. 27, l. 25 to p. 28, l. 2 (discussing Ct.'s Ex. 2)];

see also Academic Press Dictionary of Science and Technology 1671 (Christopher Morris, ed.

---

[6] With respect to Apple's argument that the specification enables nothing beyond
software that runs on a conventional laptop or desktop [*See* Doc #175 at 8-9], the court is not
convinced at this stage in the case that one skilled in the art could not implement the claimed
player on something other than a laptop or desktop computer without undue experimentation.
See Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc., 617 F.3d
1296, 1305 (Fed. Cir. 2010) (enablement determination involves underlying questions of fact
regarding undue experimentation); *ALZA Corp. v. Andrx Pharms., LLC*, 603 F.3d 935, 940 (Fed.
Cir. 2010) (lack of enablement must be proven by clear and convincing evidence); *Genzyme
Corp. v. Transkaryotic Therapies, Inc.*, 346 F.3d 1094, 1110 (Fed. Cir. 2003) (Linn, J.,
concurring in part and dissenting in part) ("[I]t is wrong to allow enablement issues that have not
yet been fully ventilated by the parties . . . to influence a claim construction determination.").

1992) ("playback" means "the reproduction of sound from a previously recorded medium such as a tape or disk"). In response, Apple expressed its concern that "a device" would imply to the jury a portable player rather than the preferred embodiment of a laptop or desktop computer that is described in the specification. [*See* Tr. at p. 29, l. 16 to p. 30, l. 6; *id.* at p. 31, ll. 9-23.]

Apple's concern is not well-taken. A jury is more than capable of understanding that the word "device" may encompass a wide range of items including both a small, portable player as well as a larger device such as a desktop or laptop computer. The jurors will be provided with copies of the patents-in-suit for their reference throughout the trial, and Apple's experienced counsel will have ample opportunity to direct their attention to key passages. The court does not believe that the jurors will be confused or read "device" to exclude desktop and laptop computers given that the patents describe such personal computers as the preferred embodiment of the invention.

b. Whether "player" must be a personal device for an individual listener.

Personal Audio anticipates that Apple will contend that a prior art radio broadcast system anticipates the claimed "player," and Personal Audio therefore seeks a construction "that makes it clear . . . that the player is not a broadcast device for a mass of people but a personal device for an individual listener." [Doc. #163 at 6.] Personal Audio argues that the "Background of the Invention" section of the patents "specifically distinguishes the claimed player from prior audio broadcast systems including broadcast radio." [Doc. #163 at 6; *see also* Tr. at p. 15, l. 7 to p. 18, l. 25.] Apple argues that nowhere does the intrinsic record distinguish or disclaim digital audio players used in radio stations from the claimed "player." [Doc. #175 at 7.]

The "Background of the Invention" section of the patents' specification discusses "[t]he three dominant commercial systems for providing audio programming to . . . listeners": broadcast radio systems, cassette tape playback systems, and compact disk playback systems. '076 patent, col. 1, ll. 14-17. This section does discuss the disadvantages of broadcast radio, namely that

> since most broadcast stations attempting to appeal to the same general listening audience, much of the programming is duplicative and special interest programs are broadcast on a limited basis. . . . Even when desired programming is found, it must typically be listened to when it is broadcast; that is, at times chosen by the broadcaster and not the listener.

'076 patent, col. 1, ll. 21-31.

The Background section further states that "[i]t is . . . an object of the present invention to provide easy access to [a] rich selection of audio programming and to allow the listener to dynamically and interactively locate and select desired programming from the available collection . . . ." '076 patent, col. 1, l. 65 to col. 2, l. 1. Personal Audio argues that "the person who has control over the playback, who can decide to skip back, skip forward, choose this song and not that song, choose this collection and not that collection" must be the person listening to the music coming out of the player. [Tr. at p. 19, l. 23 to p. 20, l. 3.] Personal Audio points out that in a broadcasting situation, it is the DJ who is choosing the music, and the general audience has no control over the selection. [*See* Tr. at p. 20, ll. 4-10.]

Personal Audio is correct that an inventor's discussion of the disadvantages of prior art may shed light on the scope of the invention. *Kinik*, 362 F.3d at 1365. And, claims should be read in a way that avoids ensnaring prior art if it is possible to do so. *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 24 (Fed. Cir. 2000). "However, claims can only be construed

to preserve their validity where the proposed claim construction is 'practicable,' is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims." *Generation II Orthotics Inc. v. Med. Tech. Inc.*, 263 F.3d 1356, 1365 (Fed. Cir. 2001); *see also Apple Computer*, 234 F.3d at 24 (where only claim construction consistent with claim's language and written description renders claim invalid, then claim is simply invalid). Claims cannot be rewritten by the court to avoid the impact of newly discovered prior art; "the role of 'claim construction' is to describe the claim scope as it was intended when examined and obtained by the applicant, not as it might have been limited upon a different record of prosecution and prior art." *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1384 (Fed. Cir. 2001).

In this case, a construction of "player" that restricts the claimed invention to one that is "for an individual listener" is not supported by the intrinsic evidence. It is true that the patents' specification indicates that the inventors' intent was to provide a device that allows the listener to exercise control over programming selections, and the specification discusses such control as an advantage over listening to a radio broadcast with no way to control or modify the programming being broadcast on any particular station. However, while the inventors may have intended their invention to be for personal use, the court finds nothing in the intrinsic record that supports a construction limiting the invention to use by a single listener. The patents' specification explicitly contemplates use of the claimed player in an automobile. *See, e.g.*, '076 patent col. 7, l. 50. In that situation, one or more "listeners," for instance the driver or those in the front seat, may have control over song selection and playback while other passengers in the car, such as those in the back seat, do not. Personal Audio has pointed to no place in the

specification or prosecution history where the inventors explicitly limited their invention to use by a single listener or expressly disclaimed the use of their invention by a radio DJ.

c. Conclusion.

In accordance with the foregoing discussion, the terms "player" and "audio program player" in the '076 and '178 patents are construed as follows:

> 1a. "**Player**" means "**a device that reproduces sound from digital audio content**."
>
> 1b. "**Audio program player**" means "**a device that reproduces sound from digital audio content**."

2.   "Audio playback unit." '178 patent, claim 14.

At the *Markman* hearing, the parties stated that there is no longer a need for "audio playback unit" to be construed, and agreed that the "audio playback unit" is simply a part or component of the "audio program player." [*See* Tr. at p. 31, l. 24 to p. 33, l. 7.]

3.   "Programmed digital computer." '076 patent, claims 14-15.

Personal Audio proposes that "programmed digital computer" does not require construction. [Doc. #197-1 at 1.] Apple proposes that "programmed digital computer means the same thing as "player," i.e. a "desktop or laptop computer with a soundcard and appropriate software to playback audio program files." [Doc. #197-1 at 1.] Because the term "programmed digital computer" does not appear anywhere within the patents' specification, the court turns to extrinsic evidence for guidance as to how a person of ordinary skill in the art would understand this term. The 1996 edition of *The IEEE Standard Dictionary of Electrical and Electronics Terms* defines "programmed digital computer" as "a computer that consists of one or more associated processing units and that is controlled by internally-stored programs." 287 (6th

ed. 1996). The intrinsic evidence does not indicate that this term should be given anything other than this plain and ordinary meaning.

At the *Markman* hearing, the court proposed this definition to the parties. [Tr. at p. 34, ll. 6-13 (discussing Ct.'s Ex. 4).] Personal Audio had no objection to this definition. [Tr. at p. 34, ll. 16-18.] Apple indicated that it would prefer no construction to the court's proposed construction, and expressed the same concern that it articulated with respect to the definition of "player," namely that Apple seeks to make clear to the jury that the preferred embodiment described in the specification is within the scope of the claims' preamble. [*See* Tr. at p. 34, l. 22 to p. 36, l. 9.]

For the same reasons discussed in Part V.1.a., *supra*, the court does not believe that the jury will be confused as to whether the preferred embodiment, i.e. a desktop or laptop computer, is included within the scope of "programmed digital computer." Therefore, the court construes the term "programmed digital computer" in the '076 patent as follows:

> "**Programmed digital computer**" means "**a computer that consists of one or more associated processing units and that is controlled by internally-stored programs**."

This is the plain and ordinary meaning of this term. Although the court need not necessarily construe terms with ordinary meanings, the court does so in this instance in an effort to resolve the parties' dispute. *See O2 Micro*, 521 F.3d at 1360. The court has simply found that the plain meaning of the disputed claim term is the best construction.[7]

---

[7] "Programmed digital computer" appears only in the preamble of claims 14 and 15 of the '076 patent. The court again notes that generally, the preamble does not limit the claims. *Am. Med. Sys.*, 618 F.3d at 1358. As with the "player" terms, neither party has raised the issue of whether "programmed digital computer" is properly treated as a claim limitation in this case. The court construes the term out of an abundance of caution in order to avoid future disputes

4. "Sequencing file" terms.

    a. "File of data establishing a sequence." '076 patent, claims 1 and 14.

    b. "Sequencing file." '178 patent, claim 1.

    c. "Playback session sequencing file." '178 patent, claim 14.

Personal Audio proposes that "file of data establishing a sequence," "sequencing file," and "playback session sequencing file" mean "a file that is received by the player and used by the processor to both control playback of each audio program segment in the ordered sequence and respond to control commands." [Doc. #197-1 at 1-2; Doc. #197-2 at 1.] Apple proposes that "file of data establishing a sequence," "sequencing file," and "playback session sequencing file" mean "a file specifying the predetermined playback order." [Doc. #197-1 at 1; Doc. #197-2 at 1.] The patents' specification provides that the "program sequence file . . . identifies the order in which downloaded program segments are to be played." '076 patent, col. 8, ll. 39-41. It also states that the sequencing file "[defines] the sequence of programming," '076 patent, col. 8, ll. 54-55, and that the sequencing file "contains . . . detailed information about the sequence of events which occur during playback," '076 patent, col. 12, ll. 7-10.

Personal Audio's proposed construction of "sequencing file" incorporates limitations that appear elsewhere in the claim language. For example, Personal Audio proposes that the construction of "sequencing file" include the language "is received by the player"; the claim language itself specifies that the sequencing file is "received" or "downloaded" by the player.

---

over the term's meaning at trial. The court's plain meaning construction of the term gives meaning to the claim, *see id.* (preamble may be construed if necessary to give meaning to the claim), but is not intended to limit the claim scope beyond the specific limitations recited in the body of the claim.

See, e.g., '076 patent, col. 46, ll. 18-19 (player in claim 1 includes "means for receiving . . . a file

of data establishing a sequence"); '178 patent, col.45, ll. 61-64 (player in claim 1 includes "a

data communications link for downloading . . . a separate sequencing file"). Likewise, the claim

language specifies that the sequencing file is used to "control playback" and "respond to control

commands." *See, e.g.*, '178 patent, col. 48, ll. 28-32 (player in claim 14 includes "an audio

playback unit for automatically . . . reproducing said audio program files . . . in the ordered

sequence specified by said playback session sequencing file in the absence of a control command

from said listener"); *id.* col. 48, ll. 33-67 (detailing how claimed player utilizes sequencing file in

response to control commands from the listener).

At the *Markman* hearing, Personal Audio conceded that its proposed construction

incorporates limitations that are present elsewhere in the claim language, and stated that its intent

was simply to aid the jury and to convey that the player computer uses the data in the sequencing

file to make decisions about what to play next and to respond to commands from the user.

[*See* Tr. at p. 37, l. 11 to p. 39, l. 15.] The court proposed to the parties that "file of data

establishing a sequence," "sequencing file," and "playback session sequencing file" mean "a file

that identifies the order in which audio program segments are to be played and that contains

information about the sequence of events that occur during playback." [Tr. at p. 43, l. 6 to p. 44,

l. 2 (discussing Ct.'s Ex. 5).] After some discussion, both parties agreed that "file of data

establishing a sequence," "sequencing file," and "playback session sequencing file" mean "a file

of data that identifies the order in which audio program segments are to be played and that

contains information about the sequence of events that occur during playback." [*See* Tr. at p. 44,

l. 6 to p. 51, l. 12; *see also* Ct.'s Ex. 5a.]

It is undisputed that the sequencing file, at a minimum, identifies the order of audio program segments. After the above agreement was reached, the court discussed with the parties whether the file "may" or "must" contain any additional "information about the sequence of events that occur during playback." [*See* Tr. at p. 51, l. 18 to p. 56, l. 9.] There are certainly embodiments of the invention where the sequencing file contains more information than just an ordered list of program segments. *See, e.g.*, '076 patent, col. 34, l. 24 to col. 35, l. 37 (describing how sequencing file may be implemented to allow user to skip forward and back not just between program segments but between segments grouped by subject and topic). However, the parties agreed that in some circumstances, the sequencing file may be nothing more than an ordered list of addresses identifying where in the memory of the player each program segment is stored. [*See* Tr. at p. 51, l. 18 to p. 53, l. 11.]

Therefore, the court concludes that while the sequencing file may contain additional information about the events that occur during playback when, for instance, the user issues a command, in other circumstances the sequencing file may do nothing more than identify the order in which audio program segments are to be played. Accordingly, the court construes the terms "file of data establishing a sequence," "sequencing file," and "playback session sequencing file" in the '076 and '178 patents as follows:

    4a. "**File of data establishing a sequence**" means "**a file of data that identifies the order in which audio program segments are to be played and that may contain information about the sequence of events that occur during playback**."

    4b. "**Sequencing file**" means "**a file of data that identifies the order in which audio program segments are to be played and that may contain information about the sequence of events that occur during playback**."

4c. "**Playback session sequencing file**" means "**a file of data that identifies the order in which audio program segments are to be played and that may contain information about the sequence of events that occur during playback**."

Apple argued that if the file "may," but need not necessarily, contain additional information, the second half of the above construction is simply superfluous. [*See* Tr. at p. 54, l. 9 to p. 56, l. 8.] The court believes that the above construction both is consistent with the intrinsic evidence and will aid the jury in understanding that the sequencing file at least determines the order of program segments but may also include additional information about the sequence of events that occur during playback.

5. **"Means for receiving and storing a file of data establishing a sequence." '076 patent, claim 1.**

The parties do not dispute that the "means for receiving and storing . . ." element in claim 1 of the '076 patent is a means-plus-function limitation that falls under 35 U.S.C. § 112 ¶ 6. That paragraph states that

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112. The first step in construing a means-plus-function limitation is to identify the function of the limitation. *Minks v. Polaris Indus., Inc.*, 546 F.3d 1364, 1377 (Fed. Cir. 2008) (citing *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1208 (Fed. Cir. 2002)). The next step is to identify the corresponding structure in the written description necessary to perform that function. *Id.* Structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. *Id.*

21

As a preliminary matter, Personal Audio asserted that the term "receiving" should be construed as meaning "the file of data comes from outside the player." [Doc. #197-1 at 1.] Apple contends that "receiving" needs no construction. [Doc. #197-1 at 1.] However, Apple argues that Personal Audio's proposed construction of "receiving" is inconsistent with Personal Audio's proposed corresponding structure for "means for receiving" because Personal Audio proposes that the "means for receiving" is a "persistent mass storage device," which necessarily receives the file of data from within the player. [*See* Doc. #175 at 12-13; Tr. at p. 57, l. 13 to p. 60, l. 14.] At the *Markman* hearing, Apple agreed that the "file of data establishing a sequence" ultimately comes from outside the player. [Tr. at p. 58, ll. 14-18; *id.* at p. 63, ll. 17-20.] Therefore, a construction of the word "receiving" that specifies that the file comes from outside the player is unnecessary, because the parties agree on that issue.

a. Function.

The first step in construing a means-plus-function limitation is to identify the function of the limitation. *Minks*, 546 F.3d at 1377. Personal Audio proposes that the function of this limitation is "receiving and storing a file of data establishing a sequence," while Apple proposes that the function is "receiving and storing a separate file specifying the predetermined playback order ("sequence file") of said separately stored program segments which are scheduled to be reproduced by said player." [Doc. #197-1 at 1.] Apple's proposal both attempts to define "file of data establishing a sequence" and also includes additional claim language, namely the phrase "in which said program segments are scheduled to be reproduced by said player," '076 patent, col. 46, ll. 19-20.

After some discussion at the *Markman* hearing, both parties agreed that the function for

the "means for receiving and storing a file of data establishing a sequence" limitation is

"receiving and storing a file of data establishing a sequence," and that "file of data establishing a

sequence" was a term that would be separately defined by the court. [*See* Tr. at p. 61, l. 22 to

p. 62, l. 23.] Defining the function as stated does not replace or delete the additional qualifying

claim language "in which said program segments are scheduled to be reproduced by said player"

that follows "means for receiving and storing a file of data establishing a sequence." [*See* Tr. at

p. 64, l. 8 to p. 65, l. 25.] As discussed in Part V.4, *supra*, "file of data establishing a sequence"

means "a file of data that identifies the order in which audio program segments are to be played

and that may contain information about the sequence of events that occur during playback."

b. Corresponding structure.

Having determined the function of the limitation at issue, the court must now identify the

corresponding structure in the specification that is necessary to perform that function. *Minks*, 546

F.3d at 1377. Personal Audio proposes that the corresponding structure for "receiving and

storing" is the "persistent mass storage device" recited at '076 patent, col. 4, l. 37, or

equivalents. [Doc. #197-1 at 2.] Apple proposes that the corresponding structure for "receiving

and storing" is

> a 1996 high speed data modem as depicted at 115 at Figure 1 connected via dial up
> telephone to an Internet service provider via standard internet protocols (e.g.,
> TCP/IP). In the alternative, a dedicated host computer which communicates directly
> with client stations via dial up telephone facilities may be used, and cellular radio,
> cable modem and satellite links may be used to provide data communications.
> Further, in an automobile the player may be linked to the Internet via a local
> communications server computer via a radio or Infrared Data Associations (IrDA)
> wireless infrared standard link. The means also include software for transferring the
> sequence file upon a host server receiving a request from the player via the standard
> internet file transfer protocol (FTP) from a predetermined FTP download directory

> on the server and storing it on magnetic disk or optical disk cartridge configured with a Windows 95 file system and the file format shown illustrated at 351 at Figure 5, consisting of a collection of records described by the Pascal data structure as seen in the '178 patent, col. 31, ll. 62-67, each record consisting of a sequence of a single character and integer. Each character has a meaning as seen by the table in the '178 patent, col. 32, ll.5-26.

[Doc. #197-1 at 2-3.]

Personal Audio contends that one structure, a mass storage device, is the means for performing both the "receiving" and "storing" functions. [Doc. #163 at 29.] Personal Audio points out, citing *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004), that claim terms should generally be construed consistently across different claims, and notes that claim 14 of the '076 patent includes a "mass storage device . . . receiving and storing a file of data establishing a sequence," '076 patent, col. 47, l. 40 to col. 48, l. 1. [*See* Doc. #163 at 29; Tr. at p. 66, l. 12 to p. 69, l. 19.] Claim 14 does describe the mass storage device receiving the sequencing file, and the mass storage device may, in a sense, "receive" and store the file after the file has been received from outside the player. But claim 1 recites that the *player* must have means for receiving the sequencing file, and both parties agree that the file comes from outside of the player.

The court finds that the "persistent mass storage device" disclosed in the specification is not clearly linked or associated with the function of receiving the sequencing file from outside the player; rather, the "mass storage device" is one of the structures associated with the function of "storing." The specification recites other structures, for instance a "conventional high speed data modem" that are associated with receiving files from outside the player. *See* '076 patent, col. 5, ll. 35-45. Therefore, the court finds it necessary to define structures corresponding to both the functions of "receiving" and "storing" the file of data establishing a sequence.

i. "Receiving" function.

At the *Markman* hearing, the court identified the following corresponding structures that

the specification associates with the function of "receiving":

1. A conventional high speed data modem [col. 5, ll. 35-36] connected via conventional dial up telephone SLIP or PPP TCP/IP series data communication link to an Internet service provider which provides access to the Internet. The service provider is in turn connected to the host server via a high speed Internet link [col. 5, ll. 40-45]. The host server provides a FTP server interface which provides file transfer protocol services to the player. '076 patent, col. 5, ll. 47-48;

2. A dedicated host computer which communicates directly with client stations via dial up telephone facilities, cellular radio, cable modem, or satellite links. '076 patent, col. 7, ll. 44-47;

3. A link to the Internet via a local communications server computer via a radio or infrared link. '076 patent, col. 7, ll. 50-52;

4. Storing the file of data establishing a sequence on a replaceable media, such as an optical disk cartridge, which may then be inserted into the player. '076 patent, col. 7, ll. 63-66;

5. A direct link between the player implemented using the Cellular Digital Packet Data (CDPD) service. '076 patent, col. 7, l. 67 to col. 8, l. 2; and

6. Higher speed access, such as an ISDN or cable modem link. '076 patent, col. 10, ll. 4-5.

[Tr. at p. 76, l. 2 to p. 78, l. 17; Ct.'s Ex. 6a.] The court then offered the parties an opportunity to

comment on and correct any errors in the above structures, and to identify any additional

structures they believed should be included.

Personal Audio noted first that in addition to the above-cited structures, the specification

also identifies "cellular phone link" as a way to connect the player to a server. [Tr. at p. 78, l. 25

to p. 80, l. 8]; *see also* '076 patent, col. 14, ll. 61-63. Apple did not object to the inclusion of

"cellular phone" in addition to "cellular radio" in item number 2 above.

Personal Audio then expressed its concern that items number 1, 2, 3, and 5 above include structure that is not actually part of the player. [*See* Tr. at p. 81, l. 21 to p. 87, l. 20.] For instance, item 1 includes a description of the "host computer." [*See* Tr. at p. 81, ll. 23-25.] Apple responded that it does not believe it is inappropriate to include in the structure a reference to the host computer, but that it understands Personal Audio's concern. [*See* Tr. at p. 90, l. 23 to p. 91, l. 5.] Personal Audio's point is well-taken. Claim1 claims a "player," not a system, and the patent's specification makes clear that the claimed "player" is separate from the "host computer." *See* '076 patent, col. 4, ll. 30-31 (describing "a host computer indicated generally at **101** and an audio player device illustrated at **103**"); *id.*, fig. 1.

Personal Audio also argued that item 1 need not contain the particular protocols used to facilitate the file transfer, i.e. need not specify that the host server uses the FTP protocol. [*See* Tr. at p. 81, l. 25 to p. 82, l. 2.] Apple responded that it believed the proper construction should specify the FTP protocol. [*See* Tr. at p. 90, ll. 11-19.] Section 112 ¶ 6 does not permit incorporation of structure from the written description beyond that necessary to perform the claimed function. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370 (Fed. Cir. 2001). The court does not believe it necessary in this case to incorporate "FTP protocol" into the corresponding structure to the function of "receiving." The specification states that "[t]he host server **101** provides a FTP server interface **125** which provides file transfer protocol services to the player **103**." '076 patent col. 5, ll. 47-49. It is clear from this language and from Figure 1 of the patent that the FTP server is part of the host computer, and not part of the player computer. While one of skill in the art may understand that the player would need to include certain

software in order to communicate with a server using the FTP protocol, the specification does not clearly associate such software or the FTP protocol to the function of "receiving."

On the other hand, it is clear from Figure 1 and from the written description that the modem **115** is part of the player, and the specification clearly associates the modem to the function of "receiving." *See* '076 patent, col. 5, ll. 35-37 ("The player **103** further includes a conventional high speed data modem **115** *for receiving* (downloading) the program information **107** from the remote server **101** . . . ." (emphasis added)). The specification also discloses that the player's operating system includes "modem dial up driver software to support a SLIPP/PPP Internet connection." '076 patent, col. 5, ll. 33-34. The modem and associated dial up driver software are properly included as corresponding structure for the function of "receiving."

Apple had two additional comments. First, Apple argues that, with respect to the "conventional high speed data modem," the court's construction should specify that it is "a 1996 high speed data modem." [*See* Doc. #197-1 at 2; Tr. at p. 71, l. 10 to p. 72, l. 12.] Including such a date limitation in the claim construction is unnecessary, as the jury will be instructed that the corresponding structure, as well as structural equivalents under Section 112 ¶ 6, must have been available at the time of the issuance of the claim. *See Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1099-1100 (Fed. Cir. 2008).

Second, Apple expressed its concern with the "such as" language in item number 6, and argued that the court's construction should make clear that an ISDN or cable modem link is an alternative to the dial-up modem described in item 1. [*See* Tr. at p. 88, l. 9, to p. 90, l. 3.] This point is well-taken. *See* '076 patent col. 10, ll. 1-6 ("Although a conventional modem dial up connections will perform satisfactorily, the time required for uploading and downloading the

necessary files may be substantially reduced using higher speed access, such as an ISDN or cable modem link . . . .").

Having carefully considered the parties' proposals and arguments, the court finds that the means for "receiving" a file of data establishing a sequence from outside the player can be the following corresponding structures and equivalents thereof:

1. A conventional high speed data modem and modem dial up driver software for connecting via conventional dial up telephone SLIP or PPP TCP/IP series data communication link to an Internet service provider which provides access to the Internet;

2. An ISDN or cable modem link for connecting to an Internet service provider which provides access to the Internet;

3. Cellular radio, cellular phone, or satellite links;

4. A radio or infrared link for connecting to a local communications server computer linked to the Internet;

5. A place in which a replaceable media, such as an optical disk cartridge, may be inserted into the player; or

6. A direct link implemented using the Cellular Digital Packet Data (CDPD) service for providing access to the Internet using the TCP/IP protocol.

ii. "Storing" function.

At the *Markman* hearing, the court identified the following corresponding structures that the specification associates with the function of "storing":

1. A data storage system consisting of both high speed RAM storage and a persistent mass storage device, such as a magnetic disk memory. '076 patent, col. 4, ll. 36-38; and

2. A replaceable media, such as an optical disk cartridge. '076 patent, col. 7, ll. 63-65.

[Tr. at p. 76, l. 16 to p. 78, l. 6; *id.* at p. 91, ll. 10-14; Ct.'s Ex. 7a.]

The court then offered the parties an opportunity to comment on and correct any errors in the above structures. Personal Audio had no comments or objections. [Tr. at p. 91, ll. 15-17.] Apple argued, as it had in its briefing, that for a mass storage device to store a file, additional structure for representing the file as storable data, i.e. a file system, is required. [*See* Doc. #175 at 36; Tr. at p. 92, l. 11 to p. 97, l. 16.] Apple suggests that the construction of the corresponding structure for performing the "storing" function must specify that the storage device is "configured with a Windows 95 file system." [Doc. #197-1 at 2-3.]

While the specification does state that in the preferred embodiment of the invention, the player computer's CPU may use the Windows 95 operating system, *see* '076 patent, col. 5, ll. 26-31, the specification does not clearly link or associate the Windows 95 operating system or file system with the function of "storing" a sequencing file. Contrary to Apple's suggestion, the corresponding structure need not specify a particular file system in order to be sufficient. *See Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1302 (Fed. Cir. 2005) ("[T]he patentee need not disclose details of structures well known in the art."); *Aristocrat Techs. Austl. Pty Ltd. v. Multimedia Games, Inc.*, 266 Fed. App'x 942, 947 (Fed. Cir. 2008) (when discussing construction of "storage means," for which corresponding structure in specification was "memory," court stated that "computer or microprocessor memory is a generally known structure"; patent at issue was filed in 1987 and issued in 1989).

Accordingly, the court finds that the means for "storing" a file of data establishing a sequence can be the following corresponding structures and equivalents thereof:

1. A data storage system consisting of both high speed RAM storage and a persistent mass storage device, such as a magnetic disk memory; or

2. A replaceable media, such as an optical disk cartridge.

c. Conclusion.

In accordance with the foregoing discussion, the term "means for receiving and storing a

file of data establishing a sequence" in the '076 patent is construed as follows:

"**Means for receiving and storing a file of data establishing a sequence**" is a
means-plus-function limitation.

The function is "receiving and storing a file of data establishing a sequence."

**The structure corresponding to the "receiving" function can be the following
structures and equivalents thereof:**
1. **A conventional high speed data modem and modem dial up driver
   software for connecting via conventional dial up telephone SLIP or
   PPP TCP/IP series data communication link to an Internet service
   provider which provides access to the Internet;**
2. **An ISDN or cable modem link for connecting to an Internet service
   provider which provides access to the Internet;**
3. **Cellular radio, cellular phone, or satellite links;**
4. **A radio or infrared link for connecting to a local communications
   server computer linked to the Internet;**
5. **A place in which a replaceable media, such as an optical disk
   cartridge, may be inserted into the player; or**
6. **A direct link implemented using the Cellular Digital Packet Data
   (CDPD) service for providing access to the Internet using the TCP/IP
   protocol.**

**The structure corresponding to the "storing" function can be the following
structures and equivalents thereof:**
1. **A data storage system consisting of both high speed RAM storage and
   a persistent mass storage device, such as a magnetic disk memory; or**
2. **A replaceable media, such as an optical disk cartridge.**

6. "Downloading" terms.

    a. "A communications port for establishing a data communications link for downloading a plurality of separate digital compressed audio program files and a separate sequencing file from one or more server computers." '178 patent, claim 1.

    b. "A communications port for downloading at least some of said audio program files and said playback session sequencing file from said one or more server computers." '178 patent, claim 14.

The parties have three disputes with respect to these terms:

1. Whether the claimed downloading must occur over a "network connection";

2. Whether the "one or more server computers" must be "remote" or physically distant from the player computer; and

3. Whether the downloading must be initiated by a "request" from the player computer.

a. Whether downloading must occur over a "network connection."

Apple argues that "downloading . . . from one or more server computers" means that the claimed downloading occurs via a "typical client/server operation over a network." [*See* Doc. #175 at 14.] Personal Audio disputes that the claimed downloading must occur over a "network connection," and argues that the downloading may occur from a local server computer that is directly linked to the player. [*See* Tr. at p. 113, l. 12 to p. 114, l. 17.] Apple relies on the rule that claim terms must be interpreted in view of the patent's specification, and points to places in the specification that describe the player downloading files from a server over the Internet. [*See* Doc. #175 at 14-15.] Personal Audio points out that neither the claim language nor the specification uses the word "network," and naturally relies on the countervailing rule that limitations should not be imported into the claims from the specification. [*See* Doc. #163 at 11.]

The court must be mindful of both of these claim construction axioms. *See Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009) (there is often a "'fine line between' the encouraged and the prohibited use of the specification" in claim construction); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 904-05 (Fed. Cir. 2004) ("[A]n inherent tension exists . . . . The problem is to interpret claims 'in view of the specification' without unnecessarily importing limitations from the specification into the claims." (quoting *E-Pass Techs., Inc. V. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003))). The court must protect what was invented, while at the same time ensuring that its claim construction does not enlarge the patentee's right to exclude beyond what the inventor has described as the invention. *Abbott Labs.*, 566 F.3d at 1288.

It might be argued that the claim language "downloading . . . from one or more server computers" is not, on its face, limited only to downloading files over a network. However, claim language is not to be read in a vacuum, but rather in the context of the entire claim and the specification. *Phillips*, 415 F.3d at 1313. Claims 1 and 14 of the '178 patent do not merely state that the sequencing file and audio program files are "downloaded," but rather that they are downloaded from "one or more server computers." The specification regularly refers to the "player" as a "client." *See, e.g.*, '178 patent, col. 8, ll. 38-43; *id.* col.10, l. 2. Likewise, the host computer from which the player downloads files is referred to as a "server." *See, e.g.*, '178 patent, col. 5, l. 56-57; *id.* col. 6, l. 60-61. Thus, the specification confirms the understanding that, as indicated by the claim language, the player is a client that downloads files from one or more servers. Personal Audio does not dispute that the claim language means that there is a server/client relationship between the player computer and the "one or more server computers." [*See* Tr. at p. 113, ll.12-16; *id.* at p. 115, l. 20-22.]

32

The patent's specification states that the preferred embodiment of the invention, shown in Figure 1, "utilizes the Internet to provide communications between a host computer . . . and [the] audio player device." '178 patent, col. 4, ll. 37-40. In this embodiment, the player includes a modem for downloading files from a host server, and the modem "is connected via conventional dial up telephone SLIP or PPP TCP/IP series data communication link" to an Internet service provider that is connected to the host server "via a high speed Internet link." '178 patent, col. 5, ll. 44-54. Thus, at least in the preferred embodiment of the invention, the player/client is connected to the host server via a network, namely the Internet.

The specification also states that "numerous other . . . communications schemes may be substituted for the preferred Internet server and PC client player architecture shown in FIG. 1." '178 patent, col. 7, ll. 50-53. The specification then describes several other types of "data communications links" by which the player/client may connect to the host server:

> "A dedicated host computer which communicates directly with client stations via dial up telephone facilities may be used . . . ." '178 patent, col. 7, ll. 53-55;

> "[C]ellular radio, cable modem and satellite links may be used to provide data communications in lieu of the conventional SLIP/PPP telephone and Internet links . . . ." '178 patent, col. 7, ll. 55-58;

> "[A] 'player' computer may be linked to the Internet via a local communications server computer via a radio or infrared link . . . ." '178 patent, col. 7, ll. 59-61;

> "A direct link . . . may be implemented using the Cellular Digital Packet Data (CDPD) service . . . to provide low-cost access to the Internet using the TCP/IP protocol . . . ." '178 patent, col. 8, ll. 8-12;

> "[H]igher speed [Internet] access, such as an ISDN or cable modem link." '178 patent, col. 10, ll. 9-14; and

> A "cellular phone link . . . to connect the player **103** to the server." '178 patent, col. 14, l. 67 to col. 15, l. 1.

All of these additional examples involve data communication over some kind of network, either the Internet or a dial up telephone, cellular, or satellite network. Even the example of a direct radio or infrared link to a "local communications server" involves connecting the player to a network, because the specification states that the player is "linked to the Internet" via the local communications server.

The specification's repeated descriptions of data communication over a network are consistent with the patent's Abstract, which describes the invention as "[a]n audio program and message distribution system in which a host system organizes and transmits program segments to client subscriber locations." '178 patent, at (57). While the abstract speaks only generally to the invention, this description is clearly one of a network where a host transmits files to multiple clients at different locations, not merely to a single client that is directly linked to the host.

With respect to the patent's prosecution history, the language of prosecution claim 34, which ultimately issued as claim 1 of the '178 patent, was amended during prosecution from "an input port for receiving a plurality of separate digital compressed audio program files from an external source" to read "a communications port for establishing a data communications link for downloading a plurality of separate digital compressed audio program files and a separate sequencing file from one or more server computers." [Doc. #175-6, Oct. 28, 2008 Amendment at 2.] In other words, "receiving" was changed to "downloading," and "from an external source" was changed to "from one or more server computers." Although this amendment does not speak directly to whether "downloading . . . from one or more server computers" is limited to downloading files over a network, it does indicate an intent on the part of the applicants to claim something more distinct than simply "receiving . . . from an external source."

The court next reviews extrinsic evidence, which indicates that in 1996 the existence of a server/client relationship generally implied the use of communications over a network. *The IEEE Standard Dictionary of Electrical and Electronics Terms* defines "client-server" as "*[i]n a communications network*, the client is the requesting device and the server is the supplying device. For example, the user interface could reside in the client workstation while the storage and retrieval functions could reside in the server database." 163 (6th ed. 1996) (emphasis added); *see also Academic Press Dictionary of Science and Technology* 1963 (Christopher Morris ed., 1992) ("server" means "any device that is *connected to a network* and provides a service . . . in response to requests from computers connected to the network" (emphasis added)).

Although the patentees did not expressly disclaim the possibility of a server computer being directly linked to the player/client computer, nothing in the intrinsic evidence indicates that the claim language "from one or more server computers" is meant to convey anything other than the commonly understood meaning of a server/client relationship as described in contemporaneous technical dictionaries, i.e. a relationship in which client computers connect to a server via some sort of network. The patentees were required by 35 U.S.C. § 112 ¶ 1 to provide a "full, clear, concise, and exact" written description of their invention, and the specification does not even hint that the claimed "downloading . . . from one or more server computers" may occur via any kind of communications link other than a connection to a network.

As noted, the numerous descriptions of communication between the host server and the player/client discussed in the specification all involve communication over some kind of network. "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Phillips*,

415 F.3d at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). The court concludes that "a communications port for establishing a data communications link for downloading" and "a communications port for downloading" mean "a port for establishing a connection between the player and a network."

b. Whether server computer(s) must be physically distant from the player computer.

Personal Audio proposes that "downloading" means simply "transferring or transmitting data," and that there is nothing in the claim language or other intrinsic evidence that requires that the player computer be remote or physically distant from the host server. [*See* Doc. #163 at 13; Doc. #184 at 5-6.] Personal Audio points to a dictionary definition of "download" that indicates that "downloading" may, but need not, involve the transfer of data from a remote computer. [*See* Doc. #163 at 12-13 (citing Douglas Downing, Michael Covington & Melody Mauldin Covington, *Dictionary of Computer and Internet Terms* 115 (5th ed. 1996) ("download" means "to transmit a file or program from a central computer to a smaller computer *or* a computer at a remote site" (emphasis added))).]

Apple argues that "downloading" means transmitting data "from a remote computer." [*See* Doc. #175 at 14-15.] Apple points to an amendment made to claim 1 during prosecution and argues that the amendment narrowed the claims such that the "one or more server computers" must be physically distant from the player/client. [*See* Doc #175 at 15-17.] During prosecution, the language of prosecution claim 34, which ultimately issued as claim 1 of the '178 patent, was amended from "an input port for receiving a plurality of separate digital compressed audio program files from an external source" to read "a communications port for establishing a data

communications link for downloading a plurality of separate digital compressed audio program

files and a separate sequencing file from one or more server computers." [Doc. #175-6 at 2.]

Apple argues that the applicants disclaimed downloading simply "from an external

source" and that downloading from a server computer over a network implies physical distance.

[*See* Doc. #175 at 15.] Apple further points to language in the specification and prosecution

history that describes the player downloading from a "remote" server. *See* '178 patent, col. 5,

ll. 44-46 ("The player **103** further includes a conventional high speed data modem **115** for

receiving (downloading) the program information **107** from the remote server **101** . . . ."); [Doc.

#175-6 at 18 ("Nothing in either reference suggests that specific audio files . . . could or should

be specified by a sequencing file that is downloaded from a remote server via the player's

communications port . . . .")].

While the amendment that Apple points to did narrow claim 1 by changing "from an

external source" to "from one or more server computers," the court finds that the applicants did

not expressly disclaim or disavow the possibility that the "one or more server computers" might

be located physically near or close to the player/client. *See Abbot Labs.*, 566 F.3d at 1289 (owing

to "inherent ambiguities" of prosecution history, doctrine of prosecution disclaimer only applies

to "unambiguous disavowals" of claim scope). Rather, the impetus behind the amendment

appears to have been to distinguish the claimed player over prior art that did not disclose

downloading a separate sequencing file that specifies the order in which audio program files are

to be reproduced. [*See* Doc. #175-6 at 13-19.]

Nor does the plain and ordinary understanding of a server/client relationship compel a

construction that the server be located physically distant from the client. The existence of a

network does not necessarily imply physical distance. *See The IEEE Standard Dictionary of Electrical and Electronics Terms* 597 (6th ed. 1996) ("local area network" can mean "[a] communication network to interconnect a variety of intelligent devices (e.g., personal computers, workstations, printers, file storage devices) that can transmit data over a limited area, typically within a facility").

It is true that in the preferred embodiment of the invention described in the specification, the player computer is connected to the host computer via the Internet, and in one place the specification refers to the host server as "remote." But nowhere does the patent's specification state that the player computer must be a particular physical distance from the host computer. The court finds that a person of ordinary skill in the art would understand that networks may be of all sizes and may be set up within a small space, and thus would not understand the claim language "downloading . . . from one or more server computers" to limit the claimed invention to a player that is physically distant from the "one or more server computers." *See Rexnord*, 274 F.3d at 1342 (unless compelled to do otherwise, court should give claim term full range of its ordinary meaning as understood by artisan of ordinary skill). The court declines to adopt a construction that requires the downloaded files to be transmitted "from a remote computer(s)."

c. Whether downloading must be initiated by a "request" from the player computer.

Personal Audio argues that the plain and ordinary meaning of "downloading" does not require "requesting," and points to places in the specification that describe transferring or transmitting files to the player without mentioning a "request." [*See* Doc. #163 at 12.] Apple argues that a typical server/client relationship involves a request from the client to the server to

initiate the transmittal of data from the server to the client. [*See* Doc. #175 at 16-17; Tr. at p.

101, ll. 16-18; *id.* at p. 102, l. 23 to p. 103, l. 14; *id.* at p. 105, l. 4 to p. 106, l. 3.]

As previously discussed, the language of claims 1 and 14 of the '178 patent states not

merely that the sequencing file and audio program files are "downloaded," but that they are

downloaded from "one or more server computers." This claim language read in light of the

patent's specification would indicate to one of skill in the art the existence of a server/client

relationship, i.e. that the player is a client that downloads files from a server. *See supra* Part

V.6.a. Accordingly, the question is not merely whether the ordinary meaning of "downloading"

involves some kind of "request," but rather whether the ordinary understanding of a server/client

relationship in which a client downloads files from a server, read in light of the patent's

specification, involves a request from the client to initiate the download.

The patent's specification repeatedly refers to the player "requesting" a download from

the host server. *See, e.g.*, '178 patent, col. 5, ll. 57-61 ("The host server **101** provides a FTP

server interface **125** which provides file transfer protocol services to the player **103** . . . *in

response to requests from the player* **103** . . . ." (emphasis added)); *id.* at col. 6, ll. 60-62 ("The

host server **101** periodically transmits a download compilation file **145** *upon receiving a request

from the player* **103**." (emphasis added)); *id.* at col. 7, ll. 19-22 ("The player **103** downloads the

session schedule file and then *issues download requests* for those identified program segment

files which are not already available in the player's local storage unit **107**." (emphasis added));

id. at col. 8, ll. 33-41 ("The download file or files containing programming . . . are designate[d]

by filenames provided by the *requesting client/player* **103** . . . ." (emphasis added)); *id.* at col.

10, ll. 1-3 ("[T]he identification of the needed files may be passed to the client/player **103** for inclusion in the next *download request*." (emphasis added)).

Although the court must take care not to limit broader claim language to the embodiments described in the specification, it may do so where the patentee has "demonstrated a clear intention to limit the claim scope using 'words or expressions of manifest exclusion or restriction.'" *Abbott Labs.*, 566 F.3d at 1288 (citing *Liebel-Flarsheim*, 358 F.3d at 906); *SciMed*, 242 F.3d at 1341 (where specification makes clear that invention does not include a particular feature, that feature is outside the reach of the claims, even though claim language read without reference to specification might be considered broad enough to encompass the feature). Such is the case here. Not only does the patent's specification repeatedly refer to the player/client "requesting" downloads from the host server, it expressly restricts the claimed invention to one in which downloads are initiated by the player, and excludes the idea that downloads may be initiated by the server:

> Note that the compilation records noted above are used by the server to optimize the content of the recommended program schedule and not to initiate actual downloads to the player. **As contemplated by *the invention*, the player initiates the actual downloads by sending download requests to the server.** Nonetheless, the server can transmit to the client player an indication of optimum times when downloading should be requested.

'178 patent, col. 24, ll. 19-26 (emphasis added); *SciMed*, 242 F.3d at 1341 (where embodiment "is described as the invention itself, the claims are not entitled to a broader scope than that embodiment").

The court concludes that a person of ordinary skill in the art reading the claim language "downloading . . . from one or more server computers" in light of the patent's specification, which expressly restricts the claimed invention to one in which downloads are initiated by the

40

player, would understand that the claimed server/client relationship is one in which the

player/client issues "requests" to initiate a download from the host server. Contemporaneous

technical dictionaries confirm that plain and ordinary understanding of a client downloading files

from a server involves a request from the client to the server. *See The IEEE Standard Dictionary*

of Electrical and Electronics Terms 163 (6th ed. 1996) (defining "client-server" as "[i]n a

communications network, the client is the *requesting* device and the server is the supplying

device" (emphasis added)); *id.* at 162 ("client" can mean "[i]n networking, a station or program

requesting a service" (emphasis added)); *Academic Press Dictionary of Science and Technology*

445 (Christopher Morris ed., 1992) ("client" can mean "in data management, a user terminal

requesting access to a database that resides on the host computer" (emphasis added)); *id.* at 1963

("server" means "any device that is connected to a network and provides a service, such as . . .

file storage and retrieval, in response to *requests* from computers connected to the network"

(emphasis added)).

d. Conclusion.

In accordance with the foregoing discussion, the court construes the "downloading"

terms in the '178 patent as follows:

> 6b. "**A communications port for establishing a data communications link for downloading**" means "**a port for establishing a connection between the player and a network**."
>
> "**Downloading a plurality of separate digital compressed audio program files and a separate sequencing file from one or more server computers**" means "**transferring a plurality of separate digital compressed audio program files and a separate sequencing file from the memory of one or more separate computers to the memory of the player upon a request by the player**."
>
> 6c. "**A communications port for downloading**" means "**a port for establishing a connection between the player and a network**."

"**Downloading at least some of said audio program files and said playback session sequencing file from said one or more server computers**" means "**transferring at least some of said audio program files and said playback session sequencing file from the memory of one or more separate computers to the memory of the player upon a request by the player**."

7.   "Selected audio program segments" and "a collection" terms.

   a. "Selected audio program segments." '076 patent, claim 1.

   b. "A collection." '178 patent, claims 1, 14-19, 25-29.

Personal Audio proposes that "selected audio program segments" and "a collection" mean that the audio program segments and collection of audio program files "are chosen by or for an individual listener or subscriber." [Doc. #197-1 at 1; Doc. #197-2 at 1.] Apple argues that no construction is necessary for these two terms. [Doc. #197-1 at 1; Doc. #197-2 at 1.] Personal Audio argues that these terms have a specific meaning in light of how they are described in the patents' specification and prosecution history. [Doc. #163 at 13.] Personal Audio argues that the set of audio program segments or files to be played by the player are not chosen at random, but rather are personalized by or for an individual listener. [See Doc. #163 at 13-15.] Apple argues that the plain and ordinary meaning of these terms is sufficient and that Personal Audio's proposed construction would be confusing to the jury. [See Doc. #175 at 17-18.]

a. "Selected audio program segments."

The term "selected audio program segments" appears in claim 1 of the '076 patent. Throughout the description of the preferred embodiment of the invention, the patent's specification repeatedly discusses downloading to the player programming that has either been

42

selected by the user, or has been selected for the user based on data about the user and his or her

preferences; the specification further provides that the user may alter the selection and sequence

of programming after it has been downloaded:

> The host server **101** . . . stores and maintains a user data and usage log database indicated
> at **143** . . . [that] contains . . . data describing the preferences, demographic characteristics
> and program selections unique to each subscriber . . . .” ‘076 patent, col. 6, ll. 41-48;

> “The [download compilation file] is previously written . . . by a download processing
> mechanism . . . [that] extracts from the library **130** data defining compressed program . . .
> segments . . . *based on selections and preferences made by (or inferred for) the user* as
> specified in the subscriber data and usage log database **143**.” ‘076 patent, col. 6, ll. 61-68
> (emphasis added);

> “Based on the information supplied by the user, the server then compiles one or more
> files for downloading to the subscriber . . . .” ‘076 patent, col. 8, ll. 20-23;

> “The data downloaded includes a recommended program sequence file . . . with the
> *initial selection and sequence being established based on user preference data* by the
> download compilation processing mechanism . . . .” ‘076 patent, col. 8, ll. 39-44
> (emphasis added);

> “[T]he subscriber may alter the selection and sequence of program materials to be played
> . . . .” ‘076 patent, col. 8, ll. 50-51;

> “[T]he user may alter his or her selections and general subject matter preferences to
> control the manner in which the host assembles program schedules for future sessions.”
> ‘076 patent, col. 9, ll. 12-15;

> “[The] subscriber is given the opportunity at **217** *to select programming which should be
> included in the next programming download*.” ‘076 patent, col. 9, ll. 31-33 (emphasis
> added);

> “[T]he host server receives and supplements the *user’s initial selection of a sequence of
> desired programs* . . . by adding advertisements, announcements and *additional program
> segments tailored to the subscriber’s known preferences* . . . .” ‘076 patent, col. 18,
> ll. 21-28 (emphasis added).

The court is cognizant that it should avoid restricting the claims to the preferred

embodiments described in the specification. However, claims should also be interpreted with an

eye toward giving full meaning to every word of the entire claim term. *Gen. Atomics Diazyme*

Labs. Div. v. Axis-Shield ASA, 277 F. App'x 1001, 1006 (Fed. Cir. 2008) (citing *Bicon, Inc. v.*

Straumann Co., 441 F.3d 945, 950 (Fed. Cir. 2006)). Claim 1 of the '076 patent does not merely

claim a player for reproducing "audio program segments"; it claims a player for reproducing

"*selected* audio program segments." '076 patent, col. 46, ll. 13-14.

The use of the word "selected" implies that the audio program segments reproduced by

the player are not just any audio segments, but rather segments that have been picked or chosen

for reproduction. The court concludes that a person of ordinary skill in the art reading the word

"selected" in light of the numerous references in the specification to the user selecting

programming or the host server selecting programming based on the user's preferences would

understand that the "selected audio program segments" are audio program segments that have

been chosen by or for the user. Accordingly, the court finds that "selected audio program

segments" means "audio program segments that have been chosen by or for a user."[8] This

construction gives full meaning to every word of the claim term; declining to construe "selected

audio program segments" as Apple suggests would not give proper meaning to the word

"selected."[9]

---

[8] While the court construes "selected" as meaning that the audio program segments are chosen "by or for a user," as discussed in Part V.1.b, *supra*, nothing in the intrinsic evidence limits the invention to use by only a single listener. For instance, when the claimed player is used in an automobile, a passenger may be able to operate the player as easily as the driver of the vehicle.

[9] Generally, the preamble does not limit the claims. *Am. Med. Sys.*, 618 F.3d at 1358. As with the "player" and "programmed digital computer" terms, neither party has raised the issue of whether "selected audio program segments" is properly treated as a claim limitation in this case (although Apple contends that the term does not require construction). In this case, it appears to the court that construction of "selected audio program segments" is necessary both to give

b. "A collection."

The term "collection" appears in both independent claims of the '178 patent, as well as in

several of the dependent claims. Personal Audio contends that "a collection" should be given the

same meaning as "selected audio program segments," namely that the claimed collection of

audio program files is "chosen by or for an individual listener or subscriber." [*See* Doc. #163

at 13-15.] However, unlike claim 1 of the '076 patent, claim 1 of the '178 patent does not specify

that the "collection" of audio program files is "selected." But claims that are dependent from

claim 1 of the '178 patent do specify that the audio program files in the claimed collection are

"selected" or personalized to the preferences of the user. For example:

> "wherein each audio program file in said collection . . . is selected in accordance with
> program preference data of program selections accepted from said listener to define a
> playback session that is personalized to the preferences of said listener," '178 patent,
> col. 47, ll. 27-32 (claim 9, which depends from claim 1);

> "wherein at least some of said separate digital compressed audio program files . . . are
> selected by or on behalf of said listener" '178 patent, col. 47, ll. 34-36 (claim 10, which
> depends from claim 9).

The presence of a dependent claim that adds a particular limitation gives rise to a

presumption that the limitation in question is not present in the independent claim. *Phillips*, 415

F.3d at 1315. So, the presence of dependent claims that add the limitation that audio program

files are "selected" by or for the listener, or that the playback session is "personalized to the

preferences" of the listener, gives rise to presumption that those limitations are not present in

claim 1 of the '178 patent. The doctrine of claim differentiation is at its strongest where, as here,

---

meaning to the claim and to resolve the parties' dispute. *See id.* (preamble may be construed if
necessary to give meaning to the claim); *O2 Micro*, 521 F.3d at 1360 (when parties raise dispute
regarding scope of claims, court must resolve that dispute).

the limitation sought to be "read into" an independent claim already appears in a dependent

claim. *See Liebel-Flarsheim*, 358 F.3d at 910.

The claim differentiation presumption can be overcome if the circumstances suggest a

different explanation, or if the evidence favoring a different claim construction is strong. *See id.*

Personal Audio points to the prosecution history of the '178 patent, in which the applicants

described the sequencing file as automating "a personalized playback session by reproducing the

collection of selected program files in the ordered sequence specified by the sequencing file."

[*See* Doc. #163-8, Oct. 28, 2008 Amendment at 14.] Personal Audio argues that by making this

statement, "the patentees clearly limited the 'collection of identified program files' to a

personalized collection." [Doc. #163 at 15.]

This remark in the prosecution history accompanied an amendment that attempted to

distinguish the claimed player over prior art that did not disclose downloading a separate

sequencing file. [*See* Doc. #163-8 at 13-19.] The court is not persuaded that this remark is strong

enough to rebut the claim differentiation presumption in this case. Shortly after making this

remark, the applicants further stated that "[t]he collection of audio program files specified by the

downloaded sequencing file is selected by or on behalf of the listener in accordance with

preference data or program selections accepted from the listener to define a playback session that

is personalized to the preferences of the listener [claims 42-62]." [Doc. #163-8 at 14-15.]

Prosecution claims 42-46 ultimately issued as dependent claims 9-13 of the '178 patent. The fact

that the applicants referenced these dependent claims in conjunction with their statement that the

collection of audio program files is "selected by or on behalf of the listener" bolsters the

46

presumption that the concept of the collection being "selected" or "personalized" is an additional limitation not present in independent claim 1.

Prosecution claim 47 ultimately issued as independent claim 14 of the '178 patent. This claim further supports the conclusion that the limitation that audio program files are "selected" by or for the listener, or that the playback session is "personalized to the preferences" of the listener should not be read into the construction of "a collection." Claim 14 claims an audio program player for playing "a collection of audio program files selected by a listener."[10] '178 patent col. 48, ll. 1-2. If the court construed "a collection" to mean a collection of files that have been chosen by or for the user, then the phrase "selected by a listener" would be superfluous. *See Gen. Atomics*, 277 F. App'x at 1006 (claims should be interpreted to give effect to all terms in the claim); *see also Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1371-72 (Fed. Cir. 2005) (claim terms should be interpreted consistently throughout various claims of the same patent).

Accordingly, the court concludes that in the '178 patent, the term "a collection" of audio program files should be given nothing more than its plain and ordinary meaning, namely "one or more" audio program files.

---

[10] Although the term "a collection" appears in the preamble of claim 14, it also appears in the body of the claim and in the body of claim 1. Thus, the court finds that "a collection" may be properly construed as a claim limitation in this case.

c. Conclusion.

In accordance with the foregoing discussion, the court construes the terms "selected audio program segments" in the '076 patent and "a collection" in the '178 patent as follows:

> 7a. "**Selected audio program segments**" means "**audio program segments that have been chosen by or for a user**."

> 7b. "**A collection**" of audio program files means "**one or more**" audio program files.

8.   "Means for storing a plurality of program segments." '076 patent, claim 1.

The parties do not dispute that this "means for storing . . ." element in claim 1 of the '076 patent is a means-plus-function limitation that falls under 35 U.S.C. § 112 ¶ 6. The first step in construing a means-plus-function limitation is to identify the function of the limitation, and the second step is to identify the corresponding structure in the written description necessary to perform that function. *Minks*, 546 F.3d at 1377. Structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. *Id.*

a. Function.

The parties initially proposed construction of the entire phrase "means for storing a plurality of program segments, each of said program segments having a beginning and an end." Personal Audio proposed that the function is "storing a plurality of program segments," while Apple proposed that the function is "storing a plurality of program segments, each of said program segments having a beginning and an end." [Doc. #197-1 at 1.]

At the *Markman* hearing, the court questioned the parties as to whether there was any real dispute regarding the claimed function. Personal Audio stated that it believed the claimed function is "storing a plurality of program segments," and that "each of said program segments

having a beginning and an end" simply places a further limitation on "program segments."

[*See* Tr. at p. 127, ll. 16-19.] Apple stated that in its view, a limitation on the "program

segments" that must be stored is properly a part of the claimed "storing" function. [*See* Tr. at

p. 127, l. 25 to p. 128, l. 2.] The court agrees with Personal Audio in this instance. The claimed

function for the "means for storing a plurality of program segments" is "storing a plurality of

program segments." The additional claim language "each of said program segments having a

beginning and an end" simply places a further limitation on the "program segments."

b. Corresponding structure.

Having determined the function of the limitation at issue, the court must now identify the

corresponding structure in the specification that is necessary to perform that function. *Minks*, 546

F.3d at 1377. Personal Audio proposes that the corresponding structure for "storing" is the

"persistent mass storage device" recited at '076 patent, col. 4, l. 37, or equivalents. [Doc. #197-1

at 1.] Apple proposes that the corresponding structure for "storing" is "[a] magnetic disk or

optical disk cartridge configured with a Windows 95 file system and Windows 95 Truespeech or

Musical Instrument Device Interface ("MIDI") file formats." [Doc. #197-1 at 1.]

At the *Markman* hearing, the court identified the following corresponding structures that

the specification associates with the function of "storing":

1. A data storage system consisting of both high speed RAM storage and a persistent
   mass storage device, such as a magnetic disk memory. '076 patent, col. 4, ll. 36-38;
   and

2. A replaceable media, such as an optical disk cartridge. '076 patent, col. 7, ll. 63-65.

[Tr. at p. 136, ll. 7-16; Ct.'s Ex. 11.] Personal Audio had no objection to these corresponding

structures. [*See* Tr. at p. 136, ll. 23-24.] Apple objected on the basis that the above-cited

structures do not specify a file system and file formats. [*See* Tr. at p. 137, l. 11 to p. 138, l. 9.]

Apple argues that for a mass storage device to store a file, additional structure for

representing the file as storable data, i.e. a file system, is required, and that because the only

types of program segment "files" mentioned in the specification are Truespeech and MIDI files,

these file types must be specified in the corresponding structure. [*See* Doc. #175 at 36; Tr. at p.

129, l. 14 to p. 130, l. 4; *id.* at p. 131, l. 19 to p. 132, l. 2.] Apple further argues that the

construction of the corresponding structure for performing the "storing" function must specify

that the file system is the Windows 95 file system. [*See* Tr. at p. 129, ll. 21-25.]

The specification does state that in the preferred embodiment of the invention, the player

computer's CPU may use the Windows 95 operating system. *See* '076 patent, col. 5, ll. 26-31.

However, the specification does not clearly link or associate the Windows 95 operating system

or file system with the function of "storing" program segments. Likewise, while the specification

mentions Truespeech and MIDI files in conjunction with the capabilities of the player's sound

card, *see* '076 patent, col. 5, ll. 2-17, these file types are not clearly associated with the function

of "storing" program segments. Contrary to Apple's suggestion, the corresponding structure

need not specify a particular file system in order to be sufficient. *See Default Proof Credit Card*

Sys., 412 F.3d at 1302 ("[T]he patentee need not disclose details of structures well known in the

art."); *Aristocrat Techs.*, 266 Fed. App'x at 947 (when discussing construction of "storage

means," for which corresponding structure in specification was "memory," court stated that

"computer or microprocessor memory is a generally known structure"; patent at issue was filed in 1987 and issued in 1989).

Accordingly, the court finds that the means for "storing" a file of data establishing a sequence can be the following corresponding structures and equivalents thereof:

1. A data storage system consisting of both high speed RAM storage and a persistent mass storage device, such as a magnetic disk memory; or

2. A replaceable media, such as an optical disk cartridge.

c. Conclusion.

In accordance with the foregoing discussion, the term "means for storing a plurality of program segments" in the '076 patent is construed as follows:

"**Means for storing a plurality of program segments**" is a means-plus-function limitation.

The function is "storing a plurality of program segments."

The structure corresponding to the "storing" function can be the following structures and equivalents thereof:
1. A data storage system consisting of both high speed RAM storage and a persistent mass storage device, such as a magnetic disk memory; or
2. A replaceable media, such as an optical disk cartridge.

9. **"Output means for producing audible sounds in response to analog audio signals." '076 patent, claim 14.**

At the *Markman* hearing, the parties stated that they are in agreement that the claimed function for this term is "producing audible sounds in response to analog audio signals." [*See* Tr. at p. 139, ll. 7-21.] They further stated that they are in agreement that the structure corresponding to the "producing" function includes both speakers and headphones. *See* [Tr. at p. 140, ll. 1-19]; '076 patent, col. 5, ll. 24-25 (player's sound card includes "a speaker-out port (for one or two (stereo) unpowered speakers **113**, and a headphone-out port").

Accordingly, the term "output means for producing audible sounds in response to analog

audio signals" in the '076 patent is construed as follows:

"Output means for producing audible sounds in response to analog audio signals" is a means-plus-function limitation.

The function is "producing audible sounds in response to analog audio signals."

The structure corresponding to the "producing" function can be the following structures and equivalents thereof:
    1. One or more speakers; or
    2. Headphones.

VI. CONCLUSION

The jury will be instructed in accordance with the court's interpretation of the disputed

claim terms in the '076 and '178 patents.

   So **ORDERED** and **SIGNED** this **21** day of **December, 2010.**

_____
        Ron Clark, United States District Judge